

WHAT IS CLAIMED IS:

1. In a computing environment, a method comprising:  
receiving a request for taxonomy-related information, the  
request including data corresponding to an origin node within  
5 a taxonomy and data indicating that an expanded result set is  
desired;

providing at least one query for taxonomy-related data  
corresponding to at least one node that is genealogically  
related to the origin node;

10 receiving taxonomy-related data based on the at least one  
query; and

returning a result set that includes the taxonomy-related  
data in response to the request.

15 2. The method of claim 1 further comprising,  
interpreting the request to determine that the request seeks  
data from at least one ancestor node of the origin node.

3. The method of claim 2 wherein an ancestor node  
20 corresponds to a direct parent node of the origin node.

4. The method of claim 2 wherein the request includes a value corresponding to one or more generations of ancestor nodes from which data is being sought.

5 5. The method of claim 1 further comprising,  
interpreting the request to determine that the request seeks data from at least one descendant node of the origin node.

6. The method of claim 6 wherein a descendant node  
10 corresponds to at least one immediate child node of the origin node.

7. The method of claim 5 wherein the request includes a value corresponding to one or more generations of descendant  
15 nodes from which data is being sought.

8. The method of claim 1 further comprising,  
interpreting the request to determine that the request seeks data from at least one sibling node of the origin node.

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9. The method of claim 1 further comprising,  
interpreting the request to determine that the request seeks data from at least one ancestor node relative to the origin

node, at least one descendant node relative to the origin node, and at least one sibling node relative to the origin node.

5           10. The method of claim 9 wherein the request includes a value corresponding to one or more generations of ancestor nodes from which data is being sought.

10           11. The method of claim 9 wherein the request includes a value corresponding to one or more generations of descendant nodes from which data is being sought.

15           12. The method of claim 1 wherein the request comprises an XML message, and wherein returning a result set that includes the taxonomy-related data further comprises formatting the response as an XML message.

20           13. The method of claim 1 wherein the taxonomy-related information corresponds to a taxonomy maintained at a UDDI server.

14. The method of claim 1 wherein the taxonomy-related information corresponds to a taxonomy having device information maintained therein.

5           15. A computer-readable medium having computer-executable instructions for performing the method of claim 1.

16. In a computing environment, a method comprising:  
constructing a request for taxonomy data, the request  
10 including data corresponding to an origin node within a taxonomy and data indicating that the request seeks data from one or more nodes that have a specified genealogical relationship with the origin node;  
communicating the request to a server; and  
15 receiving a response including data corresponding to at least one node that has the specified genealogical relationship with the origin node.

17. The method of claim 16 wherein a specified  
20 genealogical relationship with the origin node comprises an ancestor relationship.

18. The method of claim 17 further comprising, specifying in the request a number indicating a number of generations of ancestors for which corresponding data is sought.

5        19. The method of claim 16 wherein a specified genealogical relationship with the origin node comprises a descendant relationship.

20. The method of claim 19 further comprising, specifying  
10 in the request a number indicating a number of generations of descendants for which corresponding data is sought.

21. The method of claim 16 wherein a specified genealogical relationship with the origin node comprises a  
15 sibling relationship.

22. The method of claim 16 wherein a specified genealogical relationship with the origin node comprises a family relationship.

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23. The method of claim 16 wherein constructing a request for taxonomy data comprises constructing an XML message.

24. The method of claim 23 wherein communicating the request to a server comprises sending the XML message to a UDDI server.

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25. The method of claim 16 wherein communicating the request to a server comprises sending a message seeking device information.

10 26. A computer-readable medium having computer-executable instructions for performing the method of claim 16.

27. In a computing environment, a system comprising:  
a client, the client including an application program  
15 that sends a request for taxonomy-related data, the request including data corresponding to an origin node in a taxonomy and information indicating at least one genealogical relationship with the origin node;  
expansion logic that receives the request from the client  
20 and converts the request to seek taxonomy-related data from each node having a genealogical relationship with the origin node that matches a genealogical relationship indicated in the request; and

a database that maintains taxonomy data, the database coupled to the expansion logic receive at least one taxonomy-related request corresponding to the client request, and in response to each request, to locate data including at least  
5 some of the taxonomy-related data requested by the client.

28. The system of claim 27 wherein the information indicating at least one genealogical relationship specifies that taxonomy-related data is being sought from at least one  
10 ancestor node.

29. The system of claim 27 wherein the information indicating at least one genealogical relationship specifies that taxonomy-related data is being sought from at least one  
15 descendant node.

30. The system of claim 27 wherein the information indicating at least one genealogical relationship specifies that taxonomy-related data is being sought from at least one  
20 sibling node.

31. The system of claim 27 wherein the taxonomy-related request from the client comprises an XML message.

32. The system of claim 27 wherein the database is coupled to the expansion logic via a server.

5        33. The system of claim 27 wherein the database is accessed through a server, and wherein the expansion logic is incorporated in a middle tier between the client and the server.

10       34. The system of claim 27 wherein the client provides the request to the server by calling an application programming interface, the application programming interface formatting the request as a message for communicating with the server.

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35. A computer-readable medium having stored thereon a data structure, comprising:

    a first field having data corresponding to an origin node in a taxonomy;

20       a second field having data indicating a genealogical relationship with the origin node; and



wherein the data structure is interpreted to seek data from at least one node of the taxonomy that matches the genealogical relationship indicated in the second field.

5           36. The data structure of claim 35 wherein the second field comprises data indicating that the genealogical relationship corresponds to at least one generation of an ancestor node of the origin node.

10           37. The data structure of claim 35 wherein the second field comprises data indicating that the genealogical relationship corresponds to at least one generation of descendant nodes of the origin.

15           38. The data structure of claim 35 wherein the second field comprises data indicating that the genealogical relationship corresponds to at least one sibling node of the origin.

20           39. The data structure of claim 35 further comprising a third field having data indicating that the data structure, when interpreted, is requesting expanded information relative to the origin node.